# TECHNICAL REVIEW DOCUMENT for OPERATING PERMIT 950PAR118

to be issued to:

Buckley Air National Guard

Buckley Air National Guard Base (ANGB)

Arapahoe County

Source ID 0050028

Michael E. Jensen May 1, 1997

## I. PURPOSE:

This document will establish the basis for decisions made regarding the applicable requirements, emissions factors, monitoring plan and compliance status of emission units covered by the operating permit proposed for this site. It is designed for reference during the review of the proposed permit by the EPA, the public, and other interested parties. The conclusions made in this report are based on information provided in the original application submittal of January 26, 1996; supplemental technical submittals of July 12, August 2, and December 10, 1996; meetings on April 4, October 9, 1996 and April 2, 1997; a site visit on December 27, 1996; previous inspection reports as well as numerous telephone conversations with the permittee and the permittee's consultant (CH2MHill).

## II. SOURCE DESCRIPTION:

Buckley Air National Guard Base (ANGB), established in the 1930s, occupies approximately 3,228 acres of land approximately 12 miles east of downtown Denver. The Base is within the city of Aurora, in Arapahoe County. The Base is the headquarters for the 140<sup>th</sup> Fighter Wing (140 FW) of the Colorado Air National Guard (ANG). The primary mission of the Base is to provide organizational and maintenance support to the 140<sup>th</sup> FW which flies F-16, T-43, C-9, and C-26 aircraft.

The 140<sup>th</sup> FW operates and maintains the installation and provides support to the following other tenants:

Air National Guard Units (ANG) - 120<sup>th</sup> Fighter Squadron,

154<sup>th</sup> Air Control Group,

227<sup>th</sup> Air Traffic Control Flight,

Army National Guard Units (ARNG)- Army Aviation Support Facility

135<sup>th</sup> Aviation Battalion 147th Medical Hospital

19<sup>th</sup> Battalion, 5<sup>th</sup> Special Forces

Organizational Maintenance Shop No. 9 Detachment 1, F Company, 131<sup>st</sup> Aviation Detachment 1, F Company, 135<sup>th</sup> Aviation US Navy/Marine Corps Reserve

Marine Corps - Company P, 4<sup>th</sup> Marine Division

US Air Force - 2<sup>nd</sup> Space Wing Squadron

Det 402 Office of Special Investigation

Aerospace Data Facility

Detachment 3, 57<sup>th</sup> Aeromedical Airlift Wing

3415<sup>th</sup> Communications Squadron

The Base is located in an area designated as non-attainment for carbon monoxide, ozone and particulate matter under 10 microns (PM10). There are no affected states within 50 miles. Eagles Nest Wilderness Area and Rocky Mountain National Park are Federal Class I designated areas within 100 kilometers. Florissant Fossil Beds is a Federal land area within 100 kilometers of the facility. Florissant Fossil Beds has been designated by the State to have the same sulfur dioxide increment as Federal Class I areas. The Title V application reports the Base operations are not subject to the requirements of Section 112(r)(7), the Accidental Release Plan program of the Clean Air Act. File information and the Title V application indicate the fuel burning equipment is not subject to the requirements of Title IV, the Acid Rain Program of the Clean Air Act.

Significant features of the Base include office buildings, recreational facilities, aircraft hangers, an engine test cell, fuel storage and dispensing systems, and storage and maintenance facilities for ground equipment. There are approximately 150 buildings on the Base but there are no community facilities, housing or full-time dining or billeting capability. However, dormitories are currently scheduled for construction in 1998. The Base population is approximately 2,957 during the week and 1,300 during the monthly training assemblies. There are on-going modernization programs to remove, replace or re-model a significant number of the buildings at the Base. The closing of two major military installations in the Denver metropolitan area has increased interest in planning for additional facilities at the Base for other military organizations.

The most recent source inventory reported approximately 158 stationary sources of combustion, including 122 natural gas-fired heating units (80 boilers/furnaces/roof heaters/other, 32 hot water heaters, and 10 infrared heaters) and 36 diesel engine driven generators, 4 paint booths, two 210,000 gallon internal floating roof JP-8 fuel storage tanks, two 5,100 gallon gasoline storage tanks, and 20 diesel storage tanks ranging in size from 250 to 42,000 gallons. Most of the fuel storage is above ground, but a few small underground diesel fuel storage tanks are still in use.

On June 8, 1992, the Base was issued Initial Approval for Construction Permit 90AR147.

The permit limited the Base emissions of criteria pollutants to levels just under the Prevention of Significant Deterioration/New Source Review (PSD/NSR) thresholds of 250 and 100 tons per year to allow the classification of the Base as a minor source for PSD/NSR considerations. The permit required the applicant to maintain a current inventory of sources, provide a procedure for calculation of emissions, report annual fuel consumption, and submit APENs for new sources as necessary. These requirements had not been satisfied by the time of the Title V operating permit application. In 1992 Colorado required all APENs to be updated as a basis for billing for annual emissions. The update was never satisfactorily completed for the Base. In addition, the permittee reported that the on-going modernization programs had resulted in the removal or relocation sources, and the addition of new sources. The basic information for Construction Permit 90AR147 was, therefore, no longer valid.

The Title V application included documents requesting permits for all the generators driven by diesel engines larger than 600 HP. The intent of the submittal of these documents was to obtain synthetic minor permits for these sources. The permittee had inadvertenly overlooked the PSD/NSR issue that was to be addressed by Construction Permit 90AR147. The issuance of the synthetic minor permits would have required the Base to perform a PSD/NSR review. After furthur consideration, the permittee opted to evaluate whether or not the proposed construction permit limits were acceptable for the near future, and if so, to complete the requirements of the existing construction permit to avoid becoming a major source for PSD/NSR considerations.

The recently completed emissions inventory performed for the Title V application provided the information needed for checking and correcting the basic information for 90AR147. The various tenant chains-of-command created difficulties in confirming the information. In addition, the security sensitivity of the Air Force facility complicated the information collection and verification.

Based on the experience in validating the source data, the permittee felt the various chains-of-command and personnel turnovers needed to be considered in establishing and maintaining the source inventory. A requirement for frequent reporting would establish the type of routine procedure that the military favors. The reporting of all equipment has the disadvantage of creating an inventory containing small sources that could be exempted from reporting. However, the reporting of all sources should avoid the inadvertent non-reporting of significant sources. Finally, the combination of the frequent reporting of all sources will allow easier evaluation of the impacts of the additions of sources on the permit limits and the potential need for PSD/NSR review.

As part of the effort to develop computer programs for a source inventory and estimation of emissions needed for meeting the requirements of the construction permit, the PTE and actual annual emissions were calculated for 1995. These estimates are displayed in the following table. The computer program calculates the PTE for emergency generator

operation based on EPA guidance for calculations to be based on 500 hours of operation. As noted later in this summary, 1995 was a year of transition from the use of JP-4 to JP-8 aviation fuel. The JP-8 fuel has much lower volatile emissions, and will be reflected in a decrease in the estimated VOC emissions.

POLLUTANT	CALCUL	ATED POTEN TONS PER	Construction Permit 90AR147	BASE 1996 ACTUAL		
	Combustion Sources	Fuel Storage/ Transfer	Operation Sources	Totals	TONS PER YEAR	EMISSIONS TPY
PM					99.9	
PM <sub>10</sub>	13.5			13.5	99.9	3.6
$SO_X$	123.3			123.3	249.9	22.8
$NO_X$	351.8			351.8	249.9	141.7
VOC	40.3	28.3	31.8	100.4	99.9	11.4
СО	112.5			112.5	99.9	35.0
HAPS	7.4	1.6	5.2	14.1		1.3

As noted previously, at the time of the issuance of the Initial Approval of 90AR147 the PSD thresholds were 250 TPY for  $SO_2$  and NOx, and 100 TPY for VOC, PM and VOC emissions. Since the preparation of 90AR147 Regulation No. 3 (Regulation No. 3, Part A §I.B.59, Major Stationary Source for purposes of Part B, Construction Permits, a.) has been changed to address  $PM_{10}$  precursors. In the Denver metropolitan  $PM_{10}$  nonattainment area,  $SO_2$  and NOx must be treated as  $PM_{10}$  precursors. A source which emits, or has the potential to emit, 100 TPY or more of  $SO_2$  or NOx is classified as a major source for  $PM_{10}$  precursors and is subject to the nonattainment area new source review provisions. The permittee needs to be mindful that the table of emissions above shows the actual Base emissions of nitrogen oxides, and the potential to emit for  $SO_2$  set by the construction permit, establishes the Base as a major  $PM_{10}$  precursor source and subject to the nonattainment new source review provisions. An major modification of the source emissions resulting in a net increase of NOx or  $SO_2$  of 40 TPY, or more, will require the application of Lowest Achievable Emission Rates (LAER) and offsets.

AP	$\mathbf{E}$	N	S
----	--------------	---	---

The question of APEN reporting needs to be addressed. The Initial Approval construction permit included the requirements for an annual reporting of emissions and updating of the source inventory. Both of these requirements are included in the operating permit. The annual emissions report requirement over-rides the requirement to submit revised APENs only when there has been a specified amount of emissions increase during the reporting year. The annual emissions reporting and inventory update are necessary to closely track the changes resulting from the modernization projects and signal a need for PSD/NSR review.

The emission limits established by the initial approval of Construction Permit 90AR147 are commonly referred to as "bubble limits". The bubble limits apply to all the air emissions sources existing at the time the permit is issued. The bubble allows the permittee the flexibility to operate any combination of the existing equipment, processes or procedures as desired or needed, without prior Division approval, as long as the over-all permit limits are not exceeded. As an example, without prior approval by the Division, the permittee could select a wide range of combinations of diesel generator sizes and operating times, as needed to accomplish a given task without first seeking the Division approval. It must be noted that the bubble permit is limited to **existing** sources. Any new sources added, or significant modifications of existing sources, must be evaluated for the impacts created and the requirement for a construction permit or the need for a modification of the operating permit. Condition 8 of the Initial Approval of 90AR147 is at conflict with this requirement. Condition 8, as written, required only the submittal of an APEN.

To resolve the conflict, and still make operational flexability available to the permittee, the following solution was developed. APEN groupings were established on the basis of the use of common emission factors as shown in the table below. Any new sources that fit in the established APEN groupings will be reported on the annual up-date in advance of their anticipated construction. A separate, individual APEN for the source will not need to be provided when it fits in the grouping, except for large emergency generators. While this constitutes Division pre-approval of some of the equipment, the Division does reserve the right to require the submittal of a separate APEN for any new source.

Any new source with a function or emission factors not matching the groupings, or any emergency generator rated at greater than 100 horsepower and anticipated to operate more than 100 hours per year or the significant modification of an existing source, will require the submittal of a separate APEN and a construction permit application. The air pollutant emissions contribution from this permitted source will be included within the limits set forth in the operating permit until the permit limits are exceeded. While the construction permit would not establish separate specific annual emission limits for the source, it would set forth any specific regulatory requirements for the source such as MACT, NSPS, etc., and possible short term emission limits that may be required by regulation.

The emergency generator APEN requirements noted above are based on the combination of

the EPA guidance for evaluation of the generator PTE at 500 or 8760 hours of operation; and the Regulation 3 requirement for submittal of an APEN when the actual annual uncontrolled emissions are estimated to exceed 1.0 TPY in a non-attainment area. The additional PTE, or the change in PTE created by an additional emergency generator engine, is likely to trigger the need for a PSD/NSR review. A significant increase in the operating time of the diesel engines larger than 600 HP also has the potential to exceed the permit limits.

APEN	EMISSION FACTORS						
GROUP	PM	PM10	SO2	NOX	VOC	CO	
Boilers < 0.3 MMBtu/Hr NG	11.18 lb/10 <sup>6</sup> ft <sup>3</sup>	11.18 lb/10 <sup>6</sup> ft <sup>3</sup>	0.6 lb/10 <sup>6</sup> ft <sup>3</sup>	94.0 lb/10 <sup>6</sup> ft <sup>3</sup>	7.3 lb/10 <sup>6</sup> ft <sup>3</sup>	40.0 lb/10 <sup>6</sup> ft <sup>3</sup>	
Boilers 0.3 to 10MMBtu/Hr NG	12 lb/10 <sup>6</sup> ft <sup>3</sup>	12 lb/10 <sup>6</sup> ft <sup>3</sup>	0.6 lb/10 <sup>6</sup> ft <sup>3</sup>	100 lb/10 <sup>6</sup> ft <sup>3</sup>	5.8 lb/10 <sup>6</sup> ft <sup>3</sup>	21 lb/10 <sup>6</sup> ft <sup>3</sup>	
Boilers 0.3 to 10MMBtu/Hr Diesel Fuel	2.0 lb/10³gal	1.0 lb/10³gal	71.0 lb/10³gal	20.0 lb/10³gal	0.3 lb/10³gal	5 lb/10³gal	
Generators > 600 HP		0.2445 gm/kw-hr	2.46 gm/kw-hr	14.00 gm/kw-hr	0.44 gm/kw-hr	3.20 gm/kw-hr	
Generators <= 600 HP		1.34 gm/kw-hr	1.25 gm/kw-hr	18.80 gm/kw-hr	1.53 gm/kw-hr	4.06 gm/kw-hr	
Engine Test Cell  Idle Power Settings: Intermed Full			1.1 10.0 15.5	7.0 366.0 255.0	1.1 1.6 1213.0	25.4 13.1 1289.0	
Arresting Barrier Engines Gasoline Fuel		0.006 lb/gal	0.010 lb/gal	0.185 lb/gal	0.344 lb/gal	7.128 lb/gal	

## III. EMISSION SOURCES

The following sources are specifically regulated under the terms and conditions of the Operating Permit for this site:

## **Combustion Sources**

**1. Applicable Requirements** - The Base has a significant number of large diesel engine driven generators for emergency electrical power. It had previously been recognized that the

theoretical Potential-To-Emit (PTE) from the generator engines and other combustion sources exceeded the thresholds for classification of the Base as a major source for Prevention of Significant Deterioration/ New Source Review (PSD/NSR) considerations. While the PTE is large, the actual annual emissions are relatively small due to the limited operating time of the standby generators. Previous discussions between the Division and the permittee resulted in the application for Construction Permit 90AR147 with limits set to keep the facility from becoming classified as a major source, and avoid the need for PSD/ NSR review considerations as long as the actual emissions were below the permit levels.

The jet engine test cell and a power check pad merit some discussion. The test cell is a static test stand for mounting jet engines for testing and adjustments after major repair or maintenance of the engine. During 1996-97, an enclosure is being constructed for the test cell. The structure is to provide noise control and weather protection during engine testing. The power check pad is a paved area where jet aircraft are parked while an engine(s) is subjected to the same type of tests that are performed on the tests stand. The engine remains in the aircraft on the check pad. The emissions produced during the power pad checkout are considered to be mobile source emissions and not included in the Title V permit.

**2. Emission Factors** - While there are a large number of sources, the actual emissions from each source are small. In addition, a number of sources perform the same function (e.g. space heating, hot water heating, standby electrical power generation). This functional commonality allows APEN grouping and makes emissions estimates easier. The following combustion source APEN groupings were established and shown in the table displayed in the previous APEN discussion:

Boilers < 0.3 MMBtu/hr Boilers 0.3 to 10 MMBtu/hr, including those with diesel fuel back-up Diesel Engine Driven Generators > 600 horse power Diesel Engine Driven Generators <= 600 horse power Engine Test Cell Arresting Barriers Engines

The emissions from each group of sources can be easily estimated once the group fuel use or operating hours has been determined. For fuel burning equipment, the emissions estimates are dependent on the amount of fuel use, and not the number of sources. The fuel use also impacts the volatile organic compound emissions from the fuel storage tanks which are discussed later. The fuel usage is required to be reported monthly in order to estimate the 12 rolling total for the emissions.

The current version of FIRE shows only particulate emissions for engine test cells, while the Title V application provided emission factors for all the emissions but particulates. The jet

engines tested at the Base are not the same type as those reported in FIRE. The Air Force provided the emission factors for the Title V application. Particulate emission factors for the engines are currently under development by the Air Force and are expected to be available some time in 1997.

**3. Monitoring Plan** - Computer software programs will be used to maintain a current inventory of the sources and compute the emissions. The operating permit requires the inventory be validated at least once per year, but it may be updated as often as desired. The combination of a current and accurate source inventory and the emissions estimate spreadsheet will allow rapid calculation of the actual and potential emissions for the Base at any time.

The fuel burning equipment is restricted to the use of pipeline quality natural gas for primary operation. No. 2 distillate may be used as a backup fuel during periods of curtailment in the supply of natural gas. In addition, No. 2 distillate is restricted to a sulfur content not to exceed 0.6%. Calculations demonstrate that these fuel limitations preclude the fuel burning equipment from exceeding the particulate and sulfur dioxide standards of Regulation No. 1 and the applicable sections of Regulation No. 6.

The Division has determined, based on AP-42 emission factors and engineering judgement, that particulate emissions from the fuel burning equipment will be insignificant when pipeline quality natural gas is used as fuel. Use of pipeline quality gas will be the compliance demonstration method for the opacity standard.

The permit limits are established as 12 month rolling totals. This requires the emissions be calculated each month. The permittee will need to be mindful that a significant increase in the operating time for the large diesel engine driven generators has the potential to challenge the permit limits. Frequent monitoring and reporting will help focus attention on the development of a potential problem.

**4. Compliance Status** - At the time the Title V application was submitted the conditions for the initial approval of Construction Permit 90AR147 had never been accomplished, the mandatory 1992 APEN update had never been completely accomplished and there was existing equipment for which APENs had not been filed. The Base was, therefore, not in compliance with all applicable requirements at the time of the Title V submittal. All of these issues were addressed and resolved in the process of the preparation of the Final Approval of Construction Permit 90AR147, and the Title V operating permit.

**Fuel Storage Tanks** 

**1. Applicable Requirements** - The initial approval document for Construction Permit 90AR147 IA noted these sources were subject to the requirements of Regulation No. 6, Part A, Subpart Ka, and Part B.II. Further, the permit noted the storage tanks were subject to the requirements of Regulation No. 7, Section IV.B.2.a and 6 for storage of petroleum liquid in tanks with a capacity greater than 40,000 gallons. The Regulation No. 7 citation in the construction permit was incorrect. The correction sections are discussed below.

Regulation No. 6, Part A Subpart Ka is applicable to the storage of JP-4. Since JP-4 is no longer used or stored, this requirement was removed from the Final Approval of the Permit. Regulation No. 6, Part B.II still applies. This requirement establishes emissions limits for each piece of fuel burning equipment.

The environmental reporting requirements for under-ground storage tanks has resulted in the removal of most of the underground tanks. However, a few underground diesel fuel storage tanks still exist. The fuel storage tanks are subject to the requirements of Regulation No. 7 Section VI.B.2.a and b. The storage of No. 2 distillate is exempt from the requirements. The construction permit fugitive emissions control practices are incorporated in the operating permit.

**2. Emission Factors** - The inventory identified 24 fuel storage tanks ranging in size from 500 gallons to 210,000 gallons, storing JP-4, JP-8, diesel fuel and gasoline. The Air Force is converting to JP-8 for aviation fuel. JP-8 has a lower volatility than JP-4, resulting in a major reduction in the loss of fuel during storage and environmental impacts. Buckley started converting to the use of JP-8 at the end of 1994. 1995 was a transition year from JP-4 to JP-8, and in 1996 only JP-8 was being used.

The EPA TANKS 2 computer software was used to calculate the fuel storage tank emissions. The Division will accept and review calculations made with TANKS 2. The algorithms for the TANKS 2 calculations have been incorporated into the computer spreadsheets being used for emissions estimates.

- **3. Monitoring Plan** The emissions limits are for a 12 month rolling total. Compliance must be determined each month which requires the emissions to be calculated each month. A summary of the monthly fuel use and through-put is used for calculating the emissions from the fuel burning equipment and the storage tanks. A copy of this summary is to be submitted with the monthly emissions estimate summary. The requirement for frequent submittal of the information is in response to the permittee request previously discussed.
- **4.** Compliance Status See the discussion above for combustion sources.

# **Operational Sources**

1. Applicable Requirements - The operational sources is a generic catch-all group for volatile organic compound emissions sources and hazardous air pollutant emissions. This group includes painting, deicing, degreasing, fuel cell maintenance and other general chemical usage. The fuel cell maintenance is the leaking testing/repair procedure for air craft fuel storage tanks.

The degreasers are subject to the requirements of Regulation No. 7 Section X. The existing base degreasers are batch type units using a cleaning solvent marketed by Safety Klean. The solvent degreasers are being phased out and replace by a detergent based degreaser. Operating personnel prefer the detergent degreasers because they function like a dish-washer and do not require attention while operating.

All the volatile organic compound emissions sources are subject to the Regulation No. 7 Section V requirements for proper disposal of volatile organic compounds.

**2. Emission Factors** - Estimating the emissions from the use of paints, solvents, thinners and similar items was somewhat difficult because there was not a good system for tracking the use of the materials. For example, the existing inventory system would identify procurement of the materials by purchase order, but would not include materials purchased with a credit card. Further, the system did not identify if the material procured was ever used. Finally, the hazardous materials processing system did not closely identify the source of the specific waste materials. The increased environmental monitoring requirements for these types of materials has resulted in the military development and implementation of new tracking systems that are expected to provide a significant improvement in identification of usage of materials of concern, or subject to regulations. These new monitoring/accounting systems are currently being implemented at the Base.

As would be expected for a facility of this size and type, there is usage of various amounts of paints, thinners, solvents, paint removers and so forth. Major equipment or component painting is done elsewhere in the State or taken out of the State. There are four (4) small paint booths receiving only limited use. The paint booths are for small part or repair painting. Realistic estimations of the potential-to-emit for emissions from these paint booths are below the de minimis threshold for APEN reporting. While these paint booths are small enough to be considered insignificant sources, they are included in the operational source emissions for completeness of reporting, and to monitor for any increase in usage.

**3. Monitoring Plan** - Material usage will be reported on a monthly basis for entry into the emissions calculation spreadsheet. Material Safety Data Sheets (MSDS), purchase

specifications, and other documents will be used for identification of reportable components of the materials used that need to be entered into the spreadsheet. There may be some increase in the estimated emissions reported as the new tracking systems provide improved reporting data.

**4. Compliance Status** - See the discussion above under combustion sources.

## **Alternate Operating Scenarios**

No alternate operating scenarios were identified

## **Permit Shield**

The intent of the permit shield is to provide limited protection to the Base in the event of an error in the evaluation of whether a regulation, or portion of a regulation applies. The Base identifies the issue and presents its position. The Division reviews the position. If the Division and the facility mutually agree on the position, the issue is recorded in the operating permit. If there is a disagreement on the position, the Division has reserved the right to make the final decision. If, at a later date, it is discovered that an error was made in the mutual decision, the Base is protected from the non-compliance due to the error. However, the Base must move rapidly to obtain compliance.

In this application the applicable sections of the Federal and State regulations are identified for the sources. A blanket request is made for the shield protection from all the apparently non-applicable sections of the regulations. Since no specific issue has been identified, the Division is not able to grant the shield as requested.

## **Hazardous Air Pollutants**

The hazardous air pollutants for the Base originate as a component of the fuels used and from the various materials used in painting and degreasing. These emissions were discussed above under the operational sources section.

# **Prevention of Significant Deterioration/New Source Review (PSD/NSR)**

At the time of the preparation of Initial Approval of Construction Permit 90AR147, the total of the Potential-to-Emit (PTE) emissions classified the Base as a "major" source for PSD or NSR considerations. Since a construction permit establishes emission limits that can not be exceeded, the permit limits then become the PTE for the source.

Construction Permit 90AR147 set the permit limits at just under the thresholds for classification as a major source for PSD or NSR in a non-attainment area. As long as the Base can operate below these limits, the operation of the existing sources may be changed or new sources may be added until the estimated actual annual emissions are projected to exceed the permit limits. The source being modified, or added, that results in the exceedance of a permit emission limit, will be subject to PSD/NSR review. From that point in time, the Base will have to consider that each new source(s) may require PSD/NSR review. At the time of the preparation of the operating permit, the various tenants had to re-assure themselves that they could successfully operate and not result in a violation of the permit emission limits. The permittee needs to be mindful that a significant change in the hours of operation of the large diesel engines for the generators or the addition of new stand-by electrical generators has a major impact on emissions and could easily trigger the requirement for PSD review.

# **Fugitive Particulate Emissions**

The provisions of Regulation No. 1 §III.D require existing sources to employ control measures to minimize fugitive particulate emissions. In general, the 20% opacity and no off-property transport are guidelines, not enforceable applicable requirements. The Division has issued a construction permit for the land development activities for on-going construction at Buckley. Enforcement action against existing fugitive particulate sources can be taken only if a permittee continues to operate after failure to comply with the provisions of the control plan identified in the construction permit.

#### Miscellaneous

From time to time published emission factors are changed based on new or improved data. A logical concern is what happens if the use of the new emission factor in a calculation results in a source being out of compliance with a permit limit. For this operating permit,

the emission factors or emission factor equations included in the permit are considered to be fixed until changed by the permit. Obviously, factors dependent on the fuel sulfur content or heat content can not be fixed and will vary with the test results. The formula for determining the emission factors is, however, fixed. It is the responsibility of the permittee to be aware of changes in the factors which may affect the compliance status. Upon notification, the Division will work with the permittee to address the situation.

The modernization and upgrading of the facilities requires a number of land development permits. These permits normally have an expiration date set at the expected date of construction completion. The issuances and expiration of these permits are an on-going process and as such can not be totally and efficiently incorporated into this operating permit.

The following information is included in this summary for completeness of reporting. The modernization programs at the Base are producing a large amount of rubble. A rock crusher from Ft. Carson is being used for processing some of the rubble. Ft Carson has an initial approval construction permit (95EP256P) for the crusher (Source identification number 7770824). The permit sets limits of 1.7 TPY for particulate emissions and 0.5 TPY for PM<sub>10</sub> emissions. The rock crusher is a portable source and is "temporarily" located at Buckley. Since the crusher is under permit to Fort Carson, the Fort Carson Title V permit will account for its permit. The rock crusher emissions will be included in the Buckley inventory until such time as a Relocation Notice is filed. Both Fort Carson and Buckley will have to be mindful that Regulation 3, Part A, §I.B.59 states that a source may not be considered portable if it remains on one site for more than two years.